REMARKS

The final office action dated November 5, 2007 (the "Office Action") and Advisory Action dated December 21, 2007 have been received and noted. In response thereto, and pursuant to 37 CFR § 1.114, Applicants submit the following amendment and remarks in addition to the fee set forth in 37 CFR § 1.17(e). Claims 13-16, 18-22 and 24-26 were examined. Claims 13-16, 18-22 and 24-26 were rejected. Claims 13 and 21 are amended. Support for the amendments can be found in, for example, paragraph [0021] and Example 9 of the Application. Terracycline™, a brand-name drug by Pfizer, has been replaced by its generic name oxytetracycline. As such, no new matter has been added. Claims 13-16, 18-22 and 24-26 remain in the Application. Reconsideration of the pending claims is respectfully requested in view of the above amendments and following remarks.

On behalf of the Applicants, the attorney of record expresses her appreciation to the Examiner for granting a telephone interview on November 26, 2007. The attorney of record requested clarification of the Examiner's rejection based on a discussion of the term "thalidomide" in the *Jacobson* reference, as the claims as amended (and presently pending) do not recite "thalidomide." According to the Examiner, the term "tetracycline", which is recited in amended (and presently pending) claims 13 and 21, is broadly defined in the specification and may, therefore, encompass "thalidomide." The Examiner suggested that the term "tetracycline", as recited in claims 13 and 21, may be amended to recite the specific chemical formula of tetracycline to overcome the rejection. The attorney of record also discussed amending claims 13 and 21 to recite that the "blood of fraction thereof" and "blood *in vivo*" is derived from a healthy subject or mammal, e.g., non-diseased state.

Claims Rejected Under 35 U.S.C. § 103

Claims 13-16, 18-22 and 24-26 were rejected under 35 U.S.C. § 103(a) as being obvious over *Thalidomide for the Treatment of Oral Aphthous Ulcers in Patients with Human Immunodeficiency Virus Infection* by Jacobson et al. ("*Jacobson*") in view of U.S. Patent No. 6,015,804 issued to Golub ("*Golub*"). Obviousness is a question of law based on underlying factual inquiries, which inquiries include: (a) determining the scope and content of the prior art; (b) ascertaining the differences between the claimed invention and the prior art; (c) resolving the level of ordinary skill in the pertinent art; and, if applicable, (d) secondary considerations.

Graham v. John Deere Co., 383 U.S. 1 (1966). Applicants respectfully submit that amended independent claims 13 and 21 and their respective dependent claims are not obvious in view of the cited references under a *Graham* analysis. More specifically, one of ordinary skill in the art would not arrive at Applicants' claimed invention in view of the differences between the cited references and amended independent claims 13 and 21.

Amended independent claim 13 recites:

> A process, comprising:
> contacting blood or a fraction thereof, ***wherein the blood or fraction thereof is in a non-diseased state***, with a therapeutic substance selected from the group consisting of
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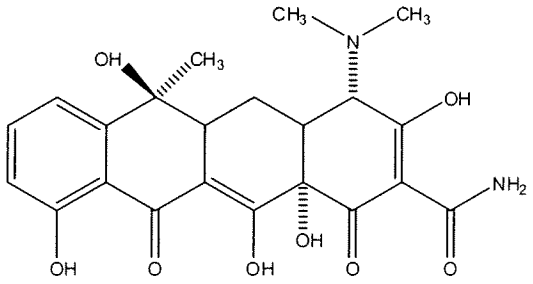
> 
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> tetracycline having the chemical formula ,
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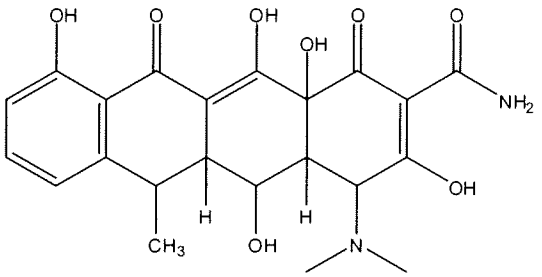
> 
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> doxycycline having the chemical formula ,
> oxytetracycline having the chemical formula
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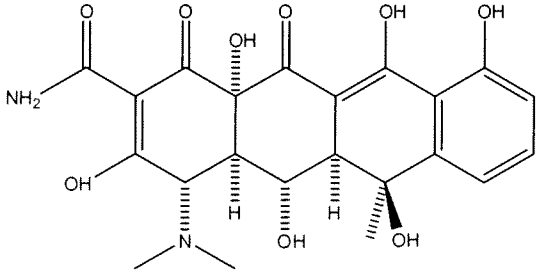
> 
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> , and salts thereof thereby increasing the level of cytokine receptors in the blood or the fraction thereof, wherein the cytokine receptors are selected from the group consisting of interleukin-1 receptors and tumor necrosis factor receptors; and
>
> after the contacting, isolating the blood or the fraction thereof having the increased cytokine receptors thereby producing a composition suitable for administration for the treatment of a disease, condition or disorder.

(App., claim 13.) Amended independent claim 21 recites:

> A process, comprising:
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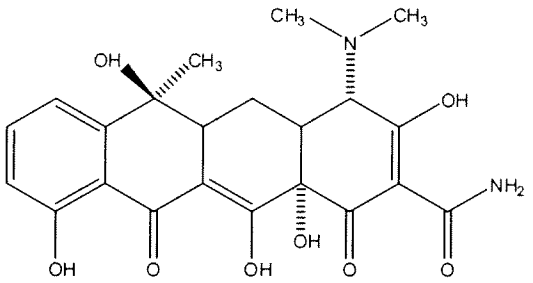
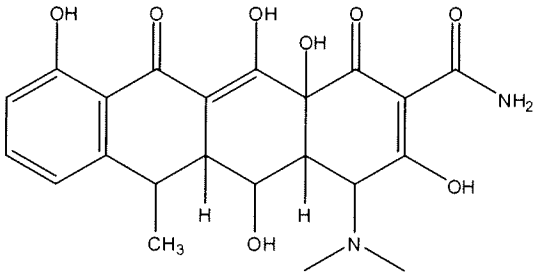
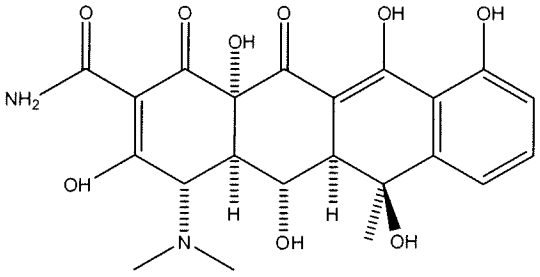
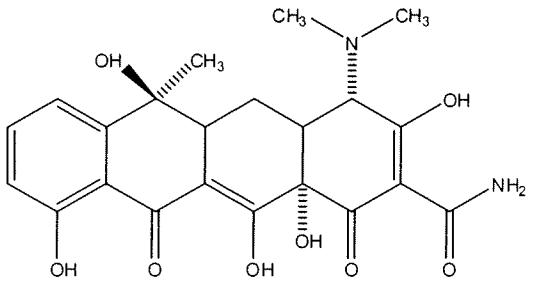
> contacting blood *in vivo*, ***wherein the blood is in a non-diseased state***, with a therapeutic substance selected from the group consisting of tetracycline having the chemical formula  , doxycycline having the chemical formula  , oxytetracycline having the chemical formula  and salts thereof thereby increasing the level of cytokine receptors in the blood, wherein the cytokine receptors are selected from the group consisting of interleukin-1 receptors and tumor necrosis factor receptors;
>
> after the contacting, collecting a portion of the blood; and
>
> after the collecting, processing the portion of the blood to isolate a blood fraction comprising cytokine receptors.

(App., claim 21.) Representatively, Example 9 of the Application illustrates administration of tetracycline to mice, collection of plasma from the tetracycline-treated mice, and administration of the collected plasma (pooled and stored at -85^{0}C) to mice in septic shock. (App., Ex. 9.) Moreover, tetracycline, doxycycline and oxytetracycline, according to amended claims 13 and 21, are limited to the chemical structures recited in the claims. (*See*, e.g., App., ¶ [0090].)

By contrast, *Jacobson* is directed to the administration of 200 mg of thalidomide for the treatment of oral aphthous ulcers in HIV-infected patients. (*Jacobson*, Abstract.) First, thalidomide is specifically excluded from amended independent claims 13 and 21. (*See*, e.g., claims 13, 21.) Second, according to *Jacobson*, the administration of thalidomide is to a diseased patient (i.e., HIV-infected) rather than a non-diseased patient. Thus, any potential "contact" of thalidomide (administered orally) with blood or a fraction thereof/blood *in vivo* is going to be "contact" of the blood or fraction thereof/blood *in vivo* in a diseased state. Consequently, *Jacobson* does not disclose all of the limitations of amended independent claims 13 and 21, namely, "contacting blood [or a fraction thereof, or, *in vivo*], wherein the blood [or fraction thereof] is in a non-diseased state, with a therapeutic substance selected from the group consisting of tetracycline having the chemical formula



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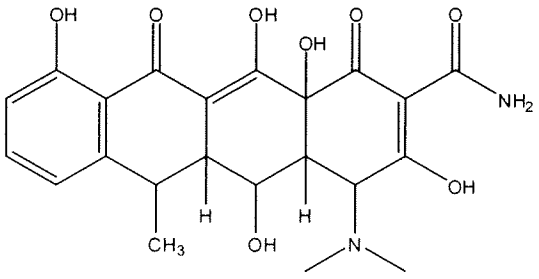
doxycycline having the chemical formula



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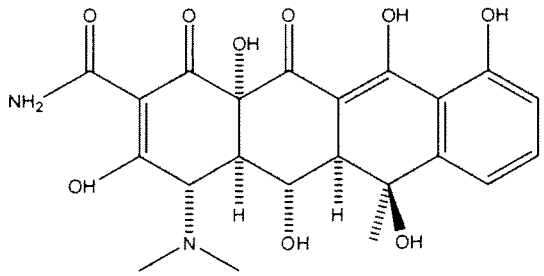
oxytetracycline having the chemical formula



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and salts thereof thereby increasing the level of cytokine receptors in the blood or the fraction thereof, wherein the cytokine receptors are selected from the group consisting of interleukin-1 receptors and tumor necrosis factor receptors." (App., claims 13, 21.)

Moreover, Applicants are unable to discern any part of *Golub* that discloses the limitations in amended independent claims 13 and 21 as discussed above and not disclosed in *Jacobson*. Thus, Applicants submit that one of ordinary skill in the art would not arrive at Applicants' claimed invention (i.e., claims 13, 21) in view of the differences between the cited references and the Applicants' claimed invention.

At least in view of the above amendments and remarks, Applicants respectfully submit that independent claims 13 and 21 and their respective dependent claims are allowable over the cited references.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 500-4787.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: February 5, 2008

Shelley M. Cobos Reg. No. 56,174

1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
Telephone (408) 720-8300
Facsimile (408) 720-8383

CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being submitted electronically via EFS Web to the United States Patent and Trademark Office on February 5, 2008.

Si Vuong